

Notice of Allowability

Application No.

09/425,225

Examiner

Joseph R. Pokrzywa

Applicant(s)

SAITO, HIROYUKI

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

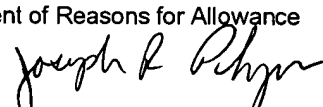
1. ☒ This communication is responsive to amendment dated 2/16/05.
2. ☒ The allowed claim(s) is/are 1-7, 12, 16 and 18-26 (renumbered as claims 1, 8, 9, 13, 14, 2, 3, 15, 17, 4, 5, 16, 18, 10, 6, 11, 7 and 12, respectively).
3. ☒ The drawings filed on 22 October 1999 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Joseph R. Pokrzywa
Primary Examiner
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DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 2/16/05, and has been entered and made of record. Currently, **claims 1-7, 12, 16, and 18-26** are pending.

Allowable Subject Matter

1. **Claims 1-7 and 12, 16, and 18-26** are allowed (renumbered as **claims 1, 8, 9, 13, 14, 2, 3, 15, 17, 4, 5, 16, 18, 10, 6, 11, 7, and 12, respectively**).

2. The following is an examiner's statement of reasons for allowance:

Regarding **claims 1, 2, 4, 5, 12, 16, and 21 (renumbered as claims 1, 8, 13-15, 17, and 18, respectively)**, in the examiner's opinion, it would not have been obvious to a person of ordinary skill in the art, at the time the invention was made to have the recording apparatus, as claimed, include the features that start excitation of a stepping motor based on a stored final exciting phase of the stepping motor upon entering a software power off state, when the apparatus is restarted from the software power off state, without performing a phase alignment of the stepping motor, and for performing a phase alignment of the stepping motor at a state of hardware power off. The closest prior art, previously noted as Isozaki (U.S. Patent Number 6,141,110) and Cronch *et al.* (U.S. Patent Number 4,706,008), both fail to expressly disclose these features. Particularly, Isozaki does not expressly disclose of storing information regarding a final exciting phase of a stepping motor upon a software power off state that restricts the recording apparatus *by changing a condition of a clock signal to control the recording*

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apparatus, whereby the control means performs a starting excitation of the stepping motor based on a stored final exciting phase when the apparatus is restarted from the software power off state, without performing a phase alignment of the stepping motor, *and for performing a phase alignment of the stepping motor at a state of hardware power off*. Similarly, Cronch fails to expressly disclose of storing the final exciting phase upon entering a software power off state, whereby the recording apparatus is restricted by changing a condition of a clock signal, whereby the stored final exciting phase is used upon restarting of software power off state, and performing a phase alignment of the stepping motor at a hardware power off state. These features, which were added in the amendment dated 2/16/05, render the claims allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Citation of Pertinent Prior Art

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Hiramatsu *et al.* (U.S. Patent Number 5,416,395) discloses a carriage drive control system for a printer;

Heinrich *et al.* (U.S. Patent Number 4,831,319) discloses a method of phase synchronization of step drive controlled equipment; and

Horning (U.S. Patent Number 4,214,194) discloses timing circuitry for a stepping motor.

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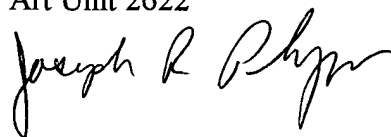
Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (571) 272-7410. The examiner can normally be reached on Monday-Friday, 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph R. Pokrzywa
Primary Examiner
Art Unit 2622



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